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Name & Organisation

Thibault Bertrand - Aerospacelab

Presentation title

Aerospacelab's RF monitoring mission objectives, achievements, and future perspectives

Abstract

With the expansion of wireless and communication systems, accessing the RF spectrum has become increasingly complex. Additionally, these systems are often susceptible to both intentional and unintentional interferences, which can lead to system failures. Paradoxically, quantitative information about ground-to-space communication and interference levels remains limited. This is primarily due to the lack of measurement equipment in space with RF payloads capable of addressing a wide variety of signals. In this context, Aerospacelab launched three versatile RF sensing satellites in March 2024, capable of monitoring frequencies from 100 MHz to 18 GHz using nine sensors and both on-ground and on-board processing. This presentation covers Aerospacelab's RF monitoring mission objectives, achievements, and future perspectives.

Short bio

With a degree in civil engineering and a specialization in telecommunications, I began my post-study career in the cutting-edge space sector at Thales Alenia Space, where I contributed to advanced RF payload manufacturing. Building on this high-tech foundation, I transitioned to the telecom industry in Belgium for three years to finally come back to the space sector as a Signal Processing Engineer in Aerospacelab, combining my technical knowledge with a passion for space technologies.